UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,574	01/29/2004	Jean Philippe Vasseur	CISCP850	6189

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EXAMINER
WONG, BLANCHE

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-18,22-30,34-48,52-60 and 65-74* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-18,22-30,34-48,52-60 and 65-74* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 5,6,8-21,23-64 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2.   Claims 22 and 74 are objected to because of the following informalities:

With regard to claim 22, Examiner suggests replacing "said tail-end" in line 6 with

"said tail-end node" in consistent with other claims.

With regard to claim 74, Examiner suggests replacing "information identifying

said path" in line 2 with "said virtual shortest path tree information" in consistent with the

claim language in claims 72 and 73.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

4.   **Claims 34-45** are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention.

Specification, p.17, para. 1, discloses a computer-readable medium, not a

computer readable storage medium. Therefore, computer readable storage medium is

new matter.

Specification, p.17, para. 1, further discloses only processor executable code, not

compute program product or computer executable codes.

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.   **Claims 4-18,22-30,65-74** are rejected under 35 U.S.C. 112, second paragraph,

as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

With regard to claims 4 and 65 and 69, it is unclear in the body of the claim that

the method is related to a first path computation element in a first autonomous system

as recited in the preamble.

With regard to claims 4 and 65 and 69, it is unclear what is the significance of a

head-end node as mentioned in the preamble, if any, because the head-end node is not

mentioned again in the body of the claim.

With regard to claims 4 and 65 and 69, it is unclear what is the significance of

said tail-end node in lines 7 and 12 with relation to the step of receiving from a second

path computation element in a second autonomous system. Examiner suggests
indicating that said tail-end node is in said second autonomous system.

With regard to claim 5, it is unclear the references to "said one or more border
routers of said revised virtual shortest path tree" in lines 2-3 and line 5 because there
are two sets of border routers, between first and second autonomous system as recited
in claim 4, lines 8-9, and between first and third autonomous system as recited in claim
5, lines 3-4.

With regard to claims 8 and 66 and 72, it is unclear in the body of the claim that
the method is related to a first path computation element in a first autonomous as
recited in the preamble.

With regard to claims 8 and 66 and 72, it is unclear what is the significance of a
second autonomous system as mentioned in the preamble, if any, because the second
autonomous system is not mentioned again in the body of the claim.

With regard to claims 11 and 12, it is unclear what are the "border routers of said
path" in line 2 because only "one or more border routers connected in both said first
autonomous system and said third autonomous system" Is recited in claim 8, lines 11-
12. The path includes border routers connected in both said first and third autonomous
system, and border routers connected in both said first and second autonomous
system.

With regard to claim 13, it is unclear in the body of the claim that the method is
related to a first path computation element in a first area as recited in the preamble.

With regard to claim 13, it is unclear where is the second path computation element in line 9.

With regard to claim 16, it is unclear in the body of the claim that the method is related to a first path computation element connected in a first area and a second area as recited in the preamble.

With regard to claims 17 and 18, it is unclear what is "said information" in line 2.

With regard to claim 18, it is unclear what is "said path" in line 2.

With regard to claims 22 and 67, it is unclear in the body of the claim that the method is related to a first path computation element in a first area as recited in the preamble.

With regard to claims 22 and 67, it is unclear what is the significance of a head-end node as mentioned in the preamble, if any, because the head-end node is not mentioned again in the body of the claim.

With regard to claims 22 and 67, it is unclear what is the significance of said tail-end node in lines 7 and 11 with relation to the step of receiving from a second path computation element in a second autonomous system. Examiner suggests indicating that said tail-end node is in said second autonomous system.

With regard to claim 23, it is unclear the references to "said one or more border routers of said revised virtual shortest path tree" in lines 2-3 and line 5 because there are two sets of border routers, between first and second area as recited in claim 4, lines 8-9, and between first and third area as recited in claim 5, lines 3-4.

With regard to claims 26 and 68, it is unclear what is the significance of a second area as mentioned in the preamble, if any, because the second area is not mentioned again in the body of the claim.

With regard to claims 26 and 68, it is unclear how the method "establish[es] a MPLS Traffic Engineering LSP."

With regard to claims 28 and 29, it is unclear what is the "information identifying said path".

With regard to claims 70 and 71, it is unclear the references to "said one or more border routers of said revised virtual shortest path tree" in lines 2-3 and line 5 because there are two sets of border routers, between first and second autonomous system as recited in claim 69, lines 11-12, and between first and third autonomous system as recited in claim 69, lines 15-16.

Claim Rejections - 35 USC § 101

7.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8.   **Claims 34-60** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A computer readable storage medium encoded with a computer program product for storing computer executable codes is not acceptable claim language whereas e.g. a computer readable medium storing executable codes, supports a statutory/hardware system.

Allowable Subject Matter

9.   Claims 4,8,13,22,26,65-69,72 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

10.   Claims 5-7,9-12,14,15,23-25,27-30,70,71,73,74 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11.   The following is a statement of reasons for the indication of allowable subject matter:

        With regard to claims 4,22,65,67,69, the prior art of record fails to anticipate or make obvious a method for operating a first path computation element in a first autonomous system/area to participate in establishing an inter-autonomous system/inter-area Traffic Engineering LSP between a head-end node and a tail-end node, comprising: "receiving, *by said first path computation element in said first autonomous system/area,* virtual shortest path tree information from a second path computation element in a second autonomous system/area, said virtual shortest path tree information identifying a virtual shortest path tree rooted at said tail-end node *in said second autonomous system/area* and extending to one or more border routers *linking said first autonomous system/area and said second autonomous system/area*; performing computations, *by said first path computation element,* based on said received virtual shortest path tree information to determine a revised virtual shortest path tree, said revised virtual shortest path tree extending from said tail-end node to one

or more border routers *linking said first autonomous system and a third autonomous system/area*; and sending, *by said first path computation element,* information identifying said revised virtual shortest path tree *to a third path computation element in said third autonomous system/area wherein the third path computation element uses the information identifying said revised virtual shortest path tree to establish an inter-autonomous system/inter-area Traffic Engineering LSP between the head-end node and the tail-end node*" (with emphasis).

With regard to claims 8,26,66,68,72, the prior art of record fails to anticipate or make obvious a method for operating a first path computation element in a first autonomous system to participate in establishing a MPLS Traffic Engineering LSP from a head-end node in said first autonomous system/area to a tail-end node in a second autonomous system/area comprising: "receiving, *by said first path computation element in said first autonomous system/area,* a path computation request from said head-end node *in said first autonomous system/area*; transmitting, *by said first path computation element,* said path computation request to a second path computation element in a third autonomous system/area bordering said first autonomous system; and thereafter receiving, *by said first path computation element,* virtual shortest path tree information from said second path computation element, said virtual shortest path tree information identifying a virtual shortest path tree rooted at said tail-end node *in the second autonomous system/area* and extending to one or more border routers connected in both said first autonomous system/area and third autonomous system/area *and in both*

said second autonomous/area and third autonomous system/area wherein the first path

computation element uses the received virtual shortest path tree to establish an inter-

autonomous system/inter-area Traffic Engineering LSP between the head-end node in

the first autonomous system/area and the tail-end node in the second autonomous

system/area" (with emphasis).

With regard to claim 13, the prior art of record fails to anticipate or make obvious

a method for operating a first path computation element in a first area to participate in

establishing a MPLS Traffic Engineering LSP comprising: "computing, *by said first*

computation element in said first area, a virtual shortest path tree rooted at said head-

end node *in said first area* and extending to one or more border outers connected to

said first area and to a third area; sending, *by said first computation element,*

information identifying said virtual shortest path tree to a second path computation

element *in said third area* operating on a border router connected in both said third area

and said second area, *wherein the second path computation element uses the*

information identifying said virtual shortest path tree to establish a MPLS Traffic

Engineering LSP" (with emphasis).

With regard to claim 16, the prior art of record fails to anticipate or make obvious

a method for operating a first path computation element connected in a first area and a

second area comprising: "receiving, *by said first path computation element connected in*

a first area, information identifying a virtual shortest path tree rooted at said head-end

node *in said third area* and extending to one or more border routers connected in both

said third area and said second area; performing, *by said first path computation*

element, computations to extend said virtual shortest path tree *from said one or more*

border routers through said second area; and identifying, *by said first path computation*

element, a path for said MPLS Traffic Engineering LSP based on said extended virtual

shortest path tree" (with emphasis).

Conclusion

12.   Applicant's amendment necessitated the new ground(s) of rejection presented in
this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37
CFR 1.136(a).
        A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within
TWO MONTHS of the mailing date of this final action and the advisory action is not
mailed until after the end of the THREE-MONTH shortened statutory period, then the
shortened statutory period will expire on the date the advisory action is mailed, and any
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
the advisory action. In no event, however, will the statutory period for reply expire later
than SIX MONTHS from the date of this final action.

13.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to BLANCHE WONG whose telephone number is
(571)272-3177. The examiner can normally be reached on Monday through Friday,
830am to 530pm.
        If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for
the organization where this application or proceeding is assigned is 571-273-8300.

    Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR.
Status information for unpublished applications is available through Private PAIR only.
For more information about the PAIR system, see http://pair-direct.uspto.gov. Should
you have questions on access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a
USPTO Customer Service Representative or access to the automated information
system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blanche Wong/
Examiner, Art Unit 2619
June 15, 2008

/Edan Orgad/
Supervisory Patent Examiner, Art Unit 2619